

South Star Cogeneration LLC is seeking approval from the CEC to construct and operate the South Star Cogeneration Project (South Star) in western Kern County approximately 35 miles southwest of Bakersfield, California. The South Star Project will consist of two substantially identical cogeneration plants, South Star I (Section 17, T32S, R23E) and South Star II (Section 7, T32S, R23E), that are located approximately 1.5 miles apart on contiguous Texaco California Inc. (TCI) property in the South Midway-Sunset Oilfield. The Application for Certification (AFC) presents an evaluation of the entire South Star Project in a manner to clearly indicate the environmental affects associated with each site and its related linear facilities.

South Star I includes the following project components shown on Figure 2-1:

- South Star I site;
- Replacement of poles and conductor for approximately 4.7 miles of existing 12.47 kV transmission line;
- 0.6 mile 115 kV transmission line extension to South Star I site;
- Alternative stand-alone 5.3 mile 115 kV transmission line;
- 3.6 miles of natural gas line (Kern-Mojave to Station 109 and natural gas line placed within TCI South Midway Utility Corridor Segment A);
- Approximately 2.4 mile Alternative Route 1 natural gas line; and
- Improved access road (Midoil Road to South Star I site).

South Star II includes the following project components as shown on Figure 2-1:

- South Star II site;
- 3.8 mile addition of second 115 kV circuit on proposed South Star I transmission line;
- 1.4 miles of natural gas line (placed within TCI South Midway Utility Corridor Segment B);
- Approximately 1.5 mile Alternative aboveground Route 2 natural gas line; and
- Improved access road (Midoil Road to South Star II site).

8.8.1 Laws, Ordinances, Regulations, and Standards**8.8.1.1 Federal**

Under Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” agencies must develop strategies to focus on environmental conditions and human health of minority communities and low income populations. The United States Environmental Protection Agency (U.S. EPA) and other federal agencies or state agencies that receive federal funds must identify and address any high and/or adverse human health or environmental effects of their programs, policies, and activities on minority and/or low income populations.

8.8.1.2 State

The criteria used to determine whether a project-related socioeconomic impact is significant is presented in Appendix G of the California Environmental Quality Act (CEQA) guidelines. The economic or social effects of a project address the significance of physical changes by the project. Pursuant to CEQA, project-related impacts are significant if they induce a substantial growth in population, displace a large number of people, or disrupt or divide the physical arrangement of an established community. Other impacts may be significant if they change community interaction patterns, social organizations, social structures, or social institutions. Also significant are the impacts of the project on community attitudes, values, perceptions, and substantial inequities in the distribution of project costs and benefits.

California Government Code § 53080, 65955 – 65997 includes provisions for levies against development projects near school districts. For commercial or industrial construction, not more than thirty-three cents (\$0.33) per square foot of chargeable covered and enclosed space will be levied. The determination of chargeable and covered and enclosed space within the perimeter of a commercial or industrial structure shall be made by the building department of the city or county issuing the building permit. The limit of \$0.33 shall be increased in year 2002 and every two years thereafter.

8.8.2 Affected Environment

This section presents a discussion of the environmental setting, consequences, impacts, and required mitigation measures associated with the socioeconomic conditions of the South Star I and II Cogeneration Project (South Star). Issues considered in this section are population, housing, education, public services, utilities, tax revenues, and economic impacts. The discussion considers both regional and local impacts.

The South Star Project sites are located in western Kern County. Statistics for Kern County and cities within the county will be used throughout this section. The South Star Project switchyards, and associated transmission line, water line, and natural gas line are also located in Kern County. Oil production is the prominent land use surrounding each South Star Project site, with numerous oil fields in the immediate and regional vicinity. The city of Taft is located approximately 3 miles to the southeast of the South Star Project sites.

The construction schedules of the two proposed project sites may not overlap entirely. Therefore, the socioeconomic information presented in this chapter that relates to plant construction, operation, secondary employment, and fiscal resources are all given on a “per site” basis. The socioeconomic impacts of the two sites combined are also discussed as a worst case scenario. The socioeconomic impacts of both sites combined with other foreseeable projects are discussed in Section 8.8.3.8, Cumulative Impacts.

8.8.2.1 Population

Kern County is California's third largest county and ranks 14th in population. The largest city in Kern County, metropolitan Bakersfield, is the state's 13th most populous city. Kern County contains 11 incorporated cities including Bakersfield, Delano, Ridgecrest, Wasco, Shafter, Arvin, California City, McFarland, Taft, Tehachapi, and Maricopa. There are 8,170 square miles of land in the county, of which 54% is agricultural farmland (CDF, 1998).

The available historical and projected population data for the incorporated cities and unincorporated towns in Kern County that are most likely to be affected by the project are summarized in Table 8.8-1. The cities and towns included in the study area are Arvin,

Bakersfield, Buttonwillow, Derby Acres, Fellows, Ford City, Maricopa, McFarland, McKittrick, Taft, Shafter, and Wasco. Population data for Kern County, the State of California, and the Greater Maricopa-Taft Region are also included. The Greater Maricopa-Taft Region includes the towns of Fellows, McKittrick, Derby Acres, Ford City, Valley Acres, South Taft, Taft Heights, Taft, Tupman, Bel Ridge, and Maricopa, all of which are in the vicinity of the South Star Project. Some towns, such as Tupman, Bel Ridge, and Valley Acres, are very small with populations less than 200 persons. The remaining towns in the Greater Maricopa-Taft Region are fairly small, the largest being Taft with a population of 6,400 at the time of the 2000 Census. The area is sparsely populated and most of the land is used for petroleum development. According to the Kern County Council of Governments, the populations in the smaller towns in the study area, such as Fellows and Derby Acres, have been decreasing in the past several years (Ball, 1998).

The unincorporated areas of Kern County are growing slower than the State of California and the incorporated cities of Kern County. Annual population growth rates are shown in Table 8.8-2 for the period between 1980 and 2020. Kern County's annual growth rate between 1980 and 1998 was 3.74%; the population was 403,089 in 1980 and increased to 639,800 in 1998. The unincorporated areas of Kern County had an annual growth rate of 1.29%. In comparison, California had a 1.91% average annual population growth rate in the same period. Within the past eight years, the majority of the population growth in Kern County occurred in the incorporated cities, while the unincorporated areas of Kern County grew at a rate of only 0.86% from 1990 to 1998.

According to the California Department of Finance (CDF), the population of Kern County is anticipated to grow at an annual average rate of 3.42% between 1998 and 2010. In the past, the overall population growth in Kern County increased 2–3% every 10 years. This level population growth is expected to continue through 2010 (CDF, 1998).

The 2000 U.S. Census data shows that, demographically, Kern County is predominantly white, 61.6%, with 38.4% Hispanic or Latino (of any race). Table 8.8-3 shows the demographic profiles in Kern County as published by the 2000 U.S. Census Bureau.

Approximately 16% of the residents of Kern County live below the poverty level, based on 1990 U.S. Census data (Table 8.8-4).

Bakersfield is the largest city in the study area (approximately 35 miles northeast of the proposed South Star I and II Project sites) and has been experiencing steady population growth over the last decade. Statistical information in Table 8.8-1 indicates that Bakersfield's population has grown almost 30% over the past ten years. According to 2000 Census data, the Bakersfield population is approximately 61.9% white, 9.2% black, 1.4% American Indian, 4.3% Asian, and 32.5% Hispanic or Latino (of any race) (see Table 8.8-3). Table 8.8-4 shows that there are 25,782 persons living below the poverty level in Bakersfield, which is 15% of the total population.

The city of Arvin is one of the larger cities of the study area; it had a population of 12,956 in 2000. Arvin is located about 42 miles northeast of the South Star Project near Bakersfield. In the past 10 years Arvin has grown approximately 28%. This growth rate is expected to slow over the next decade, with the future population reaching 15,252 by the year 2010. Arvin's racial profile is skewed, having over 45% of the people surveyed there by the 2000 Census claiming to be of "Some Other Race." Notably, 87.5% of Arvin's population is Hispanic or Latino (of any race). The poverty rate is very high in Arvin; there are 2,816 persons living below the poverty level, which is 30% of the population.

The cities of McFarland, Wasco, Shafter, and Buttonwillow are all located north and northeast of the proposed South Star Project sites. McFarland, Wasco, and Shafter are 38, 30, and 25 miles from the facility respectively. All of these cities share similar demographic statistics, in that they are predominantly Hispanic or Latino communities with high poverty levels (compared to Kern County as a whole). Wasco is the largest of these cities, which has grown significantly over the past decade, from 12,412 in 1990 to 21,263 in 2000. Shafter is smaller than Wasco with a population of 12,736 persons; however, the population is expected to increase to 15,568 by 2010. The smaller city of McFarland has a population of 9,618 persons, with a 22.2% increase estimated by 2010. It is almost 86% Hispanic. Buttonwillow is a small community approximately 15 miles northeast of the South Star Project sites. Buttonwillow had a population of 1,266 in 2000, with a declining growth

rate (-2.8%) over the past decade. This community is not projecting an increase in population by 2010 (Ball, 1998).

The incorporated cities of Taft and Maricopa are south of the South Star Project site. Taft and its surrounding communities (Taft Heights, Ford City, and Southern Taft) are the closest population to the South Star site. Downtown Taft is only 3 miles from the proposed South Star I site. Taft's current population is 6,400 persons. Although Taft's population growth rate remained relatively constant over the past 20 years, it is estimated that it will experience tremendous growth over the next decade, almost doubling the number of persons by 2010. This rapid change is partly due to a large increase in the prison population in Taft, which is expected to continue with the development of a new prison in the near future. The majority of the population in Taft is employed by the oil industry, the Taft School District, and the prison (Ball, 1998). The communities surrounding Taft, such as Taft Heights, Ford City, and Southern Taft, are expected to feel a large part of the population increase. Maricopa is an incorporated city approximately 22 miles south of the South Star Project sites. Maricopa had a population of 1,111 persons in 2000 and is expected to increase by an annual average of 3.2% per year over the next ten years. The majority of the population in Taft and Maricopa are white, with 83.2% and 85.9% respectively. As compared to the northern communities of the project study area, the poverty level in these two cities (9%) is low.

The poverty data in Table 8.8-4 was obtained from the 1990 U.S. Census. The definition of poverty in 1990 for a family of four was established by the threshold level in 1989, an annual income of \$12,674. As noted on this table, the poverty levels of the nearest towns to the South Star Project, such as Taft, Maricopa, and Ford City, are relatively low. The town with the greatest minority population is Buttonwillow, which also has a 30% poverty level.

Environmental Justice. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, signed by President Clinton on February 11, 1994, requires federal government agencies to identify and address disproportionately high and adverse effects of federal action on the health or environment of

minority and low income populations. The U.S. EPA has published several guidelines for addressing environmental justice issues, including *Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs* and *Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits* (U.S. EPA, 2000a, b).

In recent environmental justice analyses, the CEC has used consistent methodology under U.S. EPA guidelines. Under current U.S. EPA methodology and CEC practice, for potential environmental justice impacts to exist, an environmental justice population must be present within 6 miles of a project site and the project must result in “high and adverse” impacts that affect the environmental justice populations disproportionately. Under U.S. EPA guidance, an environmental justice population exists if the percentage of the population that is minority is over 50 percent. The 50-percent threshold can be applied to low income residents also.

Two six-mile radius areas centered on the two South Star project sites include parts of Kern and San Luis Obispo counties. In 1990, Kern County and San Luis Obispo County residents were 38 and 18 percent minority, respectively (see Table 8.8-5). As shown in Figure 8.8-1 (Figure 8.8-1 in 1:24,000 scale is provided in Appendix F), the six-mile radius areas include part or all of census tracts 33.03, 33.04, 34, 35 and 36 in Kern County and census tract 127.02 in San Luis Obispo County. The percentage of minority residents in the census tracts in 1990 ranged from approximately 8 to 13 percent.

Census 2000 data indicate that the non-white population in Kern County and San Luis Obispo County represented 38 and 15 percent, respectively, of total population. In addition, the percentage of the population that was Hispanic or Latino in 2000 was 38 percent in Kern County and 16 percent in San Luis Obispo County.¹ The seven census tracts

¹ Both 1990 and 2000 Census data were used for this analysis because 2000 census data showing the number of minority residents (excluding only White Non-Hispanic/Latino) had not yet been released in July 2001. The number of persons of non-white races was available for 2000 in June 2001. However, since Hispanic/Latino origin by race in 2000 was not available in July 2001, the number of Hispanic or Latino whites was not available, and therefore, the number of minority persons could not be estimated for comparison to 1990 data or true representation of a minority percentage.

surrounding the project site ranged from 8 to 28 percent non-white, and from 10 to 22 percent Hispanic or Latino.

In 1990, 16 and 12 percent of residents of Kern and San Luis Obispo counties, respectively, lived below the poverty level (see Table 8.8-5). The range of percentage of residents living below the poverty level by individual census tract within the six-mile radius areas was approximately 9 to 16 percent in 1990. Poverty statistics by census tract for 2000 were not available from Census 2000 in July 2001.

Table 8.8-5 shows that neither the counties nor the census tracts within the six-mile radius areas have minority or low income populations greater than 50 percent, and therefore do not exhibit minority or low income characteristics that would represent an environmental justice population.

As stated above, no minority or low-income populations that would represent environmental justice populations exist within 6 miles of either of the two project sites. Based on U.S. EPA guidance methodology, no environmental justice impacts would be attributable to the proposed projects.

According to the San Luis Obispo Environmental Health Department (Batson, 2001), and the Kern County Office of Environmental Health (Garrett, 2001), no known public health studies pertaining to environmental impacts have been performed for specific populations within six miles of the project sites. The California Department of Health Services' Environmental Health Investigation Branch has conducted health assessments in response to frequent childhood cancers in the McFarland area of Kern County. The assessments did not result in any environmental cause for the cancers (CBDMP, 1999). McFarland is located over 50 miles northeast of the project site. For further information, see Section 8.6, Public Health.

Pollution sources within six miles of each project site include three other power plants: Western Midway Sunset Cogeneration Company project, located approximately 5 miles northwest of the project sites, Sunrise Power Plant located approximately 4 miles northwest of the project sites, and Energy Transfer – Hannover LP, a 23 megawatt plant,

located approximately 6 miles northwest of the project sites (see Figure 8.8-1). During operation, the proposed project would also be a pollution source (see Section 8.1, Air Quality, for more information).

The VISTA Information Systems (VISTA) Environmental Database was searched for records of hazardous sites within six miles of each of the two South Star sites (VISTA, 2001)². Summary locations and descriptions of the sites are presented in Figure 8.8-1.³ VISTA reported the following records for the South Star I Project site (latitude 35.14, longitude 119.52) and the South Star II Project site (latitude 35.16, longitude 119.54). South Star II is approximately 1.5 miles northwest of South Star I. Hazardous sites within the six-mile radius include:

- 19 sites with leaking underground storage tanks;
- 1 solid waste landfill;
- 22 sites with an emergency response notification of spills classification;
- 1 site listed in the Toxic Release Inventory database;
- 23 RCRA-registered small or large generators of hazardous waste;
- 2 sites listed in the State index of properties with hazardous waste; and
- 1 RCRA violation/enforcement action.

The nearest hazardous sites reported by VISTA are approximately 2 miles east of South Star I and 1.3 miles north of South Star II. The majority of the mapped locations are clustered in the town of Taft, approximately three miles east of South Star I and five miles

² VISTA database lists include hazardous waste sites permitted by U.S. EPA (Toxic Release Inventory Sites) and the California Department of Toxic Substances Control. Databases were searched for properties within a 6-mile radius of the site, according to availability of data. Databases searched to six miles included U.S. EPA's National Priority List and Resource Conservation and Recovery Act (RCRA) Corrective Actions, and the State equivalent priority list. Databases searched to 5.5 miles include the U.S. EPA RCRA permitted treatment, storage, and disposal facilities; sites under review by U.S. EPA (Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/No Further Remedial Action Planned (NFRAP)); the State equivalent CERCLIS list; Leaking Underground Storage Tanks; and solid waste landfills, incinerators, or transfer stations. Databases searched to 5.25 miles included the state/county registered underground storage tanks list and the state's registered aboveground storage tanks list. Databases searched to 5.125 miles included U.S. EPA's RCRA registered small or large generators of hazardous waste, and the U.S. EPA/State Emergency Response Notification System and state spills lists.

³ Figure 8.8-1 shows mapped sites for both the South Star I Project site and the South Star II Project site six-mile radius areas.

southeast of South Star II (see Figure 8.8-1). Mapped locations for approximately 120 of the sites VISTA reported were not available. The number of sites listed in the databases is relatively high due to the prevalence of petroleum-related activities in and around the nearby oil producing area.

8.8.2.2 Economy

Oil and agriculture dominate the economic base of Kern County, making it the number one oil-producing and the number four rated agriculture-producing county in the United States. Four of the nation's 10 largest oil fields are located in Kern County. Oil production in Kern County has increased each of the last four years, and agriculture production reached \$2.13 billion in 1999 (CFBF, 2000).

Kern County's economic base and labor force have traditionally been driven by agriculture and mineral extraction. However, diversification of the local economy has been under way for many years and continues today. Over the next three years, population growth, diversification, and an improved business climate will result in job growth in the areas of health care, business and general services, education, retail, warehouse/distribution, and food processing. However, population growth continues to outpace employment, growth in the county, with the unemployment rate currently at approximately 10% in Kern County.

Between 1993 and 2000, the number of jobs in Kern County is expected to increase by 13%. In addition to 21,800 jobs created through industry growth, another 27,200 jobs will become available to replace workers who leave the labor force. Occupations projected to play prominent roles in this trend include education, professional/technical, managerial/administrative, and service-related activities (KEDC, 1998). Retail sales are projected to rise with county-wide job growth, increasing 13% between 1995 and 2000. The effective buying income per household is projected to rise 17% over the same period, averaging \$38,200 in the year 2000. From 1995 to 2000, Kern County's performance will nearly double the state's average increase of 8% in retail sales and 9% in effective buying income (KEDC, 1998).

In 1996, Kern County produced about 208 million barrels of oil, at a value of \$2.1 billion and produced natural gas valued at \$237 million. Agriculture in 1996 had a value of

approximately \$2,067 million, of which \$1,977 million was attributed to crops and \$89 million to livestock (KEDC, 1998).

Employment. Table 8.8-6 shows May 2001 employment data for selected cities and towns in Kern County. In May 2001, the total civilian labor force in the County was 286,500 persons, and the unemployment rate in Kern County was 9.5%. The California State Employment Development Department (EDD) estimates that the size of the labor force in Bakersfield is 100,770 persons (EDD, 1998). As Table 8.8-6 shows, the unemployment rates for the smaller towns in the South Star Project site are fairly low. Taft's unemployment rate is 5.9%, Maricopa's is 5.2%, and Buttonwillow's unemployment rate is 2.8%.

Table 8.8-7 shows industrial employment levels for May 2000 and May 2001 in the Bakersfield Metropolitan Statistical Area (MSA). As shown, 19% of jobs within Kern County are derived from farm production and farm services (total farm). Government employment accounted for about 22% of the job market in 2001 and stayed relatively constant from 2000. Most of the government employees are employed at Edwards Air Force Base in the southeast portion of the county. Services (business, health, engineering, and management) accounted for about 20% of the job market in both 2000 and 2001. The trade industry accounted for 18% of the labor market in 2000 and 2001. The construction workforce is relatively large in Kern County, making up about 12,000 jobs. As of May 2001, construction made up approximately 5% of the workforce.

8.8.2.3 Plant Construction

As stated earlier, the construction of South Star I and South Star II may not occur simultaneously. Therefore, the project data is presented on a "per site" basis. However, the impact analysis considers the potential impacts of the construction of both sites relative to the socioeconomic environment of the study area.

The construction of the South Star Project will take approximately 15 months per site. The primary trades in demand will include manual staff consisting of pipefitters, laborers, boilermakers, electricians, and carpenters. The South Star Project schedule is illustrated in Table 8.8-8, which shows an estimate per site of construction personnel requirements for each South Star Project site by trade and month. Table 8.8-9 shows the

estimated cost per site of construction personnel by craft, which includes base wages, benefits, taxes, and overtime. Total construction personnel requirements during the 15-month period would be approximately 1,409 personnel months per site. Construction personnel requirements will peak at 150 employees per site during the seventh month of construction for each site.

During peak construction per site, 135 workers out of 150 are assumed to be local workers and the remaining 15 will make up the nonlocal workforce, assumed to be contractor staff or other employees who will relocate into the study area. The local workforce per site will be distributed as follows:

- Bakersfield – 61% (92 workers);
- Taft, Ford City, or Maricopa – 2% (3 workers);
- Shafter and Wasco – 3% (4 workers); and
- Other areas of Kern County and Southern California – 34% (51 workers).

During peak construction at each site, temporary relocation of the nonlocal workforce will be as follows:

- Bakersfield – 66% (9 workers);
- Taft, Ford City, or Maricopa – 22% (3 workers);
- Shafter and Wasco – 11% (2 workers); and
- Other areas of Kern County and Southern California – 1% (1 worker).

Over the 15-month construction period, there will be an average of 93 workers during construction per site, or 186 workers total for South Star I and II. There will be an average of 84 local workers and an average of 9 nonlocal workers per site during the construction phase based on the percentages given above.

Using the average number of workers during the construction period, the population distribution from the nonlocal workforce was estimated. According to the 2000 Census, the average household size in Kern County was approximately 3.0 persons. There will be a total of 27 persons relocated to the respective cities listed below per site, or 54 in

total for South Star I and II. There will be approximately 9 additional school children and 9 other dependents in addition to the employees during construction for each site.

- Bakersfield – 18 additional persons (6 children, 6 dependents);
- Taft/Maricopa – 6 additional persons (2 children, 2 dependents); and
- Shafter/Wasco – 3 additional persons (1 child, 1 dependent).

8.8.24 Plant Operation Workforce

The proposed South Star Project is expected to begin operation in June, 2002. Due to the proximity of the proposed location to the cities of Bakersfield, Buttonwillow, Ford City, Maricopa, Taft, Shafter, and Wasco, it is anticipated that most of the workforce will commute from these cities. The facility is expected to require approximately 11 full-time personnel per site. Their job classifications are listed in Table 8.8-10. In a worst-case scenario up to 6 full-time employees per site (approximately 50% of the workforce) may relocate to the study area. Using the distribution percentages given in section 8.8.2.3 for nonlocal workers, in the worst-case scenario approximately 3 employees will move to Bakersfield, 2 will move to Taft, Ford City, and Maricopa, respectively and 1 employee will move to Shafter or Wasco. The population distribution due to the potential relocation of 6 employees per site would be as follows:

- Bakersfield – 9 additional persons (3 children, 3 dependents);
- Taft/Maricopa – 2 additional persons (2 children, 2 dependents); and
- Shafter/Wasco – 1 additional person (1 child, 1 dependent).

8.8.2.5 Secondary Employment

Project construction and project operations will generate secondary employment. This includes jobs supported through local purchasing of equipment and supplies during project construction and operation, and induced jobs, which are supported by local purchases made by households whose income is derived from the proposed project. The Impact Analysis for Planning (IMPLAN) model has been used to estimate the number of indirect or induced jobs within the area. The construction employment multiplier for major facilities in Kern County is estimated to be 3.23 based on the IMPLAN model run, as completed for a

similar CEC project in the vicinity (La Paloma, 1998). Thus, each new construction job supports 2.23 indirect jobs throughout the regional economy (La Paloma, 1998). Thus, an average of 93 construction jobs required for each project site would support an additional 207 indirect jobs. The indirect jobs would reduce the unemployment rate and be beneficial to the communities affected.

The project operations multiplier is 2.88 based on the IMPLAN model for a large electrical facility in Kern County, as completed for a similar CEC project in the vicinity. The project will require approximately 11 full-time employees at each site, once operational. The number of indirect jobs supported by project operations is about 25 jobs. The 25 additional jobs will be supported in the region and will reduce the unemployment rate.

The secondary employment created by the project will not result in immigration of nonlocal workers because the unemployment rate is high in the area and the salaries generated from the indirect jobs do not attract new workers to the area.

8.8.2.6 Fiscal Resources

The cost of the South Star Project, per site, is estimated to be \$105 to \$115 million. The overall estimated cost of materials and supplies required for the South Star Project is \$66 to \$72 million per site, and the locally purchased items will total \$2 to \$3 million per site. The total local sales tax expected to be generated during construction is \$150,000 to \$225,000 per site. The local sales tax rate in Kern County is 7.25%; of this, 6% goes to the State of California. One percent goes to either the city or county depending on where the tax is charged. If the tax is charged within city limits, the tax goes to the respective city. However, if the sales tax is generated in an unincorporated area, the sales tax goes to Kern County and is split up within the county. Table 8.8-11 shows the sales tax rate and distribution in Kern County for each project site.

The total assessed value of all secure property in Kern County in 2000-2001 was about \$43.5 billion and the total property tax revenues collected were approximately \$48.2 million (Fitch, 2001). In Kern County, 60.6% of the property tax revenue is distributed to education, 5.6% is distributed to the cities, 28.6% is distributed to the county, and 5.2% is allocated to special districts (Kaufman, 1999). All secured property in Kern County is taxed

at the rate of 1% of the total assessed value, and this value is adjusted 2% per year depending on the cost of living. This tax is collected by the county where the property is located. If the facility's value is assessed at \$105 to \$115 million, then the annual property tax generated from each facility will be \$1.05 million to \$1.15 million, with \$636,300 to \$696,900 allocated to education in Kern County.

The valuation of the South Star Project is based on a number of components related to the anticipated revenue-generating capability over time. These components include production capacity, amount, and term of the income stream, allowance for expenses, discount rate in a cash flow model, and the present value at the end of the term. Thus, the total tax paid can vary from year to year depending on the revenue of the facility.

8.8.2.5 Housing

Details about the existing housing stock in Kern County are shown in Table 8.8-12. As of January 1998, the estimated housing stock for Kern County was 228,288 dwelling units; single-family homes accounted for 157,332 units, multiple-family dwellings accounted for 44,600 units, and mobile homes/trailers accounted for 26,356 units. The residential vacancy rate for Kern County was 8.7% as of January 1998. This rate is slightly higher than the state of California's vacancy rate of 7.39%. The vacancy rate for the unincorporated areas of Kern County was 12.0%, and the vacancy rates in the incorporated areas was 5.9%. The California Department of Finance stated that in 1996 there were 2,812 housing authorizations in Kern County (CDF, 1998); 2,393 were single-family housing authorizations and 419 were for multiple-family households.

8.8.2.6 Temporary Housing

The Taft Chamber of Commerce stated that there were a total of five hotels/motels within 20 miles of the construction site. Four out of the five are located in Taft and one is in Maricopa. There are no motels in McKittrick, Derby Acres, Ford City, or Fellows. If the temporary housing stock in Taft is insufficient, the city of Bakersfield is located about 35 miles from the South Star Project sites and has about 65 motel/hotels that provide over 5,000 rooms. Also, the town of Buttonwillow is about 15 miles away and has three motels/hotels to provide temporary housing. With these available resources, the South

Star Project sites have an adequate supply of temporary housing to support the construction crew for both sites even if both sites were constructed simultaneously.

8.8.2.7 Public Services

Law Enforcement. Two law enforcement agencies serve Kern County: the Kern County Sheriff's Department and the California Highway Patrol (CHP). Within the county, there are eight city police departments and two special districts. Most of the city police departments have mutual aid agreements with the Sheriff's Office.

Kern County Sheriff. There are 15 Sheriff substations (two are residential substations) in addition to the metropolitan Sheriff's Office in Bakersfield. The Sheriff's Office also serves as the public administrator and the county coroner; in addition, the Sheriff's Office serves the unincorporated areas of Kern County. The main responsibility of the Sheriff's Office is crime prevention, law enforcement, and criminal investigation. The Bakersfield Sheriff's Office also operates the county jail, located just north of Bakersfield. As of 1998, the Kern County Sheriff's Department had a force of 550 officers. The nearest Sheriff substation to the South Star Project sites is in Taft.

The County Sheriff's Office in Taft is located approximately 3 miles from the South Star sites. At this station, there are 10 sworn personnel responsible for an 800-square-mile area. Two deputies are kept on duty at all times. The estimated response time to the South Star Project sites would vary depending on where the officer's were on their patrol. The County Sheriff would only respond to an emergency related to criminal activity; a Sheriff's response to a medical or hazardous materials situation would need to be at the request of the Fire Department.

California Highway Patrol. The nearest CHP office to the South Star Project sites is in Buttonwillow. The Buttonwillow station has approximately 24 uniformed staff. The CHP department in Buttonwillow has 13 vehicles; typically, four units are on the day shift, two to three units on the afternoon shift, and one unit on the night shift. Each unit consists of one officer, with the exception of the night shift, when there are two officers per vehicle. The emergency response time to the South Star Project sites varies depending where the units are located during the shift. If a hazardous material spill occurs on the highway, the

CHP would maintain traffic control in the area. The next closest CHP office to the South Star Project sites is located at I-5 and Stockdale Highway.

Fire Protection/Emergency Response. Kern County is protected by the Kern County Fire Department, the City of Bakersfield Fire Department, and other local fire agencies. The City of Bakersfield Fire Department has 12 substations with 170 firefighters and 20 volunteer reserves. Emergency response for the South Star Project sites would be provided by the Kern County Fire Department in Bakersfield.

Kern County Fire Department. The Kern County Fire Department has 46 substations divided into six battalions containing 110 firefighters. Battalion 2 serves the area where the South Star Project sites are located; there are nine fire stations in Battalion 2. If a fire were to occur, a minimum of three fire engines would respond to the site. The three stations responding would be Station 21 in Taft; Station 23 in Fellows; and Station 22 in McKittrick. The Fellows Station 23 would likely be the first responder (Finocchiario, 2001).

Station 21 – Taft. This station operates 24 hours a day and is staffed by two people. There are two Type I engines and one watershed patrol. The station covers an area of 171.5 square miles and serves 15,062 people. This station responds to oil fields, rural communities, rescues, and watersheds (Wyckoff, 1998). The estimated response time is approximately 2.5 minutes to the South Star Project sites (Finocchiario, 2001).

Station 23 – Fellows. This station responds 24 hours a day and is staffed by two people. The station has one Type I engine and a watershed patrol. The response area is 65.4 square miles, and the population served is 238 people (Wyckoff, 1998). The estimated response time is about 3 minutes or less to the South Star Project sites (Finocchiario, 2001).

Station 24 – McKittrick. This station responds 24 hours a day and is also staffed by two people; there are no volunteers. The equipment consists of two Type I engines and a watershed patrol. The response area is 215 square miles, and the population served is 724 people (Wyckoff, 1998). The estimated response time is approximately 10 minutes to the South Star Project sites (Finocchiario, 2001).

If more firefighters are needed, Station 22 — Maricopa would be called in with an emergency response time of 10 minutes. After these four stations have been dispatched, the next county station to respond would be dependent on the nature of the situation.

8.8.2.8 Hospitals

Kern County has adequate facilities to provide necessary health care. Local physicians can perform most medical and surgical procedures (with the exception of organ transplants) in the local hospitals. The county estimates that existing health care services include more than 550 physicians, 11 hospitals, and 11 emergency care facilities (KEDC, 1998).

Westside District Hospital in Taft is the closest hospital to the South Star Project; it is located approximately 3 miles east of South Star I and 5 miles southeast of South Star II. In addition to 21 acute-care beds, there are 63 skilled-nursing beds in the hospital and adult nursing home combined. Seven other facilities in the Taft area provide health care: five private doctor's offices, and two clinics. The nearest ambulance station is located in Taft, approximately 3 miles from the South Star Project sites. The Hall Ambulance Service estimates a 2.5 to 4 minute response time to the South Star Project sites.

8.8.2.9 Utilities

Kern County has an abundance of energy resources including ample supplies of electricity and natural gas. Kern County is a net exporter of energy resources to other parts of the state and nation. In addition to traditional sources, there are many alternative methods of energy used in Kern County, including wind energy, solar, cogeneration, and biomass, etc.

Water. Kern County is the nation's third most productive agricultural county, and retains an abundant supply of water. The quality of water available is suitable for agricultural as well as domestic and industrial uses. Commercial water rates in the Metropolitan Bakersfield area are significantly lower than in other parts of the state. These favorable rates are the result of an immense underground basin, several water district programs, the Kern River, and the State and the Central Valley Water Projects, all of which supply water resources to Kern County. Kern County water quality, quantity, and costs are

competitive for the region. The South Star Project will obtain its minimal potable, evaporative cooler, and fire water requirements from the West Kern Water District (KEDC, 1998) on an as needed basis.

Wastewater. The goal of Kern County's sewer divisions is to treat, utilize, and reclaim wastewater to provide an improved environment for its community. Provisions for the future expansion of sewage plants have been developed to meet the growing needs of Kern County (KEDC, 1998). The South Star Project will use the TCI wastewater pipeline interconnection to the Valley Waste system. Sanitary waste will be handled for each site by an onsite septic tank and leach field. Accordingly, there will be no impacts from the South Star Project on the Kern County wastewater treatment systems.

Solid Waste. Refuse pickup and both public and private waste haulers provide disposal services within Kern County. Available services include bi-weekly pickup in residential areas, annual special cleanup programs to remove and dispose of large, hard-to-handle items, and compactors and roll-off containment systems for larger commercial and industrial businesses (KEDC, 1998). Waste disposal at the South Star Project sites is addressed in Section 8.13, Waste Management.

Electricity and Natural Gas. Electricity service for Kern County is supplied by both Pacific Gas & Electric (PG&E) and Southern California Edison. The majority of the electricity these utilities provide Kern County is generated with fossil fuels or hydro-electricity.

Natural gas service for Kern County is supplied by two local gas distribution companies — PG&E and The Gas Company. This gas is supplied through interstate pipelines from Kern River Gas Transmission and Mojave Pipeline Company (Kern- Mojave). These pipelines can bring more than 2.9 billion cubic feet of gas into the state daily (KEDC, 1998). The local electricity and gas services are provided by PG&E.

Telecommunications. Kern County's telecommunications infrastructure continues to grow through the addition of many new multimillion dollar fiber optic lines. In addition to basic fiber optic services, Kern offers businesses many enhanced services that

ensure high-quality transmission and new technologies. These include building-to-building and private fiber optic networking, DS-3 capabilities, high-speed data transmission, bulk data transfer, and call management systems (KEDC, 1998).

8.8.2.10 Education

There are 47 school districts in Kern County serving grades K-12. In the 1998–1999 school year, there were a total of 143,671 students attending K-12 schools in Kern County (KernCOG, 2001). The K-12 projected enrollment by 2001–2002 is 147,377 students, an increase of 3,707 students. By 2010, there will be nearly 200,000 students in the county. In addition, there are community colleges and adult education programs provided throughout the county. In the 1998–1999 school year there were 21,889 students attending community colleges within Kern County. Taft College is the college nearest the South Star Project sites.

Thirteen school districts serve the proposed South Star Project sites. The names, districts, and current enrollment for these schools are presented in Table 8.8-13. Bakersfield has the two largest school districts serving the area of study, including the Bakersfield City School District and the Kern High School District. There are 32 elementary schools, nine junior high schools, and 13 high schools between these two districts. In the Kern High School District, six out of the 13 high schools are over their rated capacities but the high school district as a whole is not.

There is one school each in McKittrick, Fellows, and Buttonwillow. Midway School District in Fellows is at less than half of its capacity and does not project any additional growth in the future. Buttonwillow and McKittrick School Districts have a constant enrollment rate and are slightly under their capacity.

Shafter is served by two school districts. The Maple School District was above its 230 student capacity in 1997–1998. However, the estimates for the 1998–1999 school year are below the capacity with 225 students. The Richland-Lerdo School District contains three schools serving 2,428 students in 1997–1998. The district is under its capacity and is preparing to handle 2,700 students by 2003.

The Maricopa School District was at its capacity for the 1997–1998 school year, and the preliminary enrollment figures for 1998–1999 are above its capacity. In 1998, another classroom was added and more teachers were hired to compensate for the increase of students. The Maricopa School District does not project any further growth in the school district.

Wasco is served by two school districts. In 1997–1998 Wasco High was above its capacity by over 100 students, but the Elementary School District was under its capacity. In the November 1998 election, a \$9 million school bond was put on the Wasco ballot for approval to build additional facilities. Wasco High School District expects to add an additional 30 students per year in the future. The enrollment for Independence High peaked at about 270 students during 1997–1998.

The McFarland School District had an enrollment of 2,599 students in 1997–1998. Projected enrollment is 2,713 students by 2000–2001. The high schools in McFarland were over their capacities in 1997–1998 but the entire school district was under capacity.

The Taft City School District and Taft Union High School District serve the Taft area, with enrollments of 2,114 and 931, respectively. Taft City School District and the Taft Union High School District are well below their capacities, by about 200 students and 419 students, respectively. The projected enrollment for the High School District is expected to reach 1,000 by 2001–2002. Because Taft is the closest city to the South Star Project site, most of the potential new students would likely be in the Taft School Districts. Both districts have adequate space to fulfill the additional students' needs, even if both South Star I and South Star II were constructed simultaneously.

8.8.3 Environmental Consequences

8.8.3.1 Potential Environmental Impacts

The local and regional socioeconomic impacts were determined by evaluating the projected demands during the construction and operation phases of the South Star Project relative to existing conditions in the project area. The South Star Project could affect employment, housing, population, education, services, and utilities. Although the impacts

may be felt locally or regionally, it is the local impacts that will dominate due to the large size of Kern County.

The primary criteria used to determine whether a project-related socioeconomic impact is significant are presented in Appendix G of the CEQA Guidelines. The project-related impacts are significant if they induce substantial population growth in an area, displace a large number of people, or disrupt or divide the physical arrangement of an established community. Additional criteria is used by CEC Staff to determine social impacts to a community if a proposed project: (1) changes community interaction patterns, social organizations, social structures, or social institutions; (2) impacts community attitudes, values, or perceptions; or (3) results in substantial inequities in the distribution of project costs and benefits.

8.8.3.2 Impact on Employment and Economy

Plant Construction

The entire construction process for South Star I and South Star II is expected to last 15 months at each site. Peak construction is projected to occur between the sixth and eighth month for each site, however the peak periods may not overlap. On average, the construction of each site will provide short-term job opportunities (employment) for approximately 93 workers over the 15-month period. Out of these 93 employees, about 9 would be nonlocal. The nonlocal households account for 27 additional persons. Section 8.8.2.3 of this AFC presents a summary of construction characteristics for each South Star site. Table 8.8-8 defines the construction personnel requirements by trade, and Table 8.8-9 shows construction labor cost by craft for each site.

Employment. A variety of skills/crafts are needed to construct a power plant. Most of the workers that are typically needed for power plant construction are from common construction skill/craft categories such as insulation workers, carpenters, electricians, iron workers, millwrights, plasterers, painters, sheetmetal workers, sprinklerfitters, surveyors, teamsters, and general laborers. These trades would account for approximately 76 percent of the construction workforce. The remaining portion of the workforce would be derived of specialty crafts, including boilermakers, operating engineers, and pipefitters.

It is anticipated that the vast majority of the construction workers involved would be local. As stated above, the existing labor pool of the project study area had approximately 12,000 construction workers as of May 2001 (EDD, 2001). With a strong construction sector, and an average unemployment rate of 9.5% in Kern County, staffing the majority of the South Star construction workforces with local labor should not be difficult (Smith, 2001). However, of the few specialty craftsmen that would be needed for each South Star site (approximately 23 per month), some could potentially be nonlocal due to the great demand in California for these types of employees. Given the current conditions in the energy labor market in California, it is likely that South Star I and South Star II will employ some nonlocal specialty craftsmen (Smith, 2001).

For purposes of analysis, it was assumed that as many as 30 nonlocal construction workers (most likely of a specialty craft) would be employed if the construction of both South Star sites were to occur simultaneously, with peak construction occurring on both sites. This worst-case scenario would also involve the relocation of an additional 60 nonlocal dependents, resulting in a population increase of 90 nonlocal people. However, due to the short duration of the proposed construction schedule, it is unlikely that nonlocal construction workers would relocate their families into the project study area.

The nonlocal construction workers employed by South Star would not have an adverse impact on local or regional employment because these construction workers would most likely be skilled labor that was not available locally. Thus, existing employment opportunities would not be lost for those seeking employment in the study area.

Economy. The construction of South Star I and II would have beneficial impacts on the economy of the project study area. Currently, the average unemployment rate in Kern County is 9.5%, with high unemployment in Arvin, McFarland, Shafter, and Wasco (refer to Table 8.8-6). As stated earlier, the construction of South Star would support on average 93 direct and 207 indirect local jobs per site, albeit temporary (see Section 8.8.2.5). If both South Star sites are developed simultaneously, the South Star Project could be responsible for employing as many as 186 people directly and 414 people indirectly for the duration of 15 months or longer.

Plant Operation

Employment. South Star I and South Star II are expected to each require about 11 full-time operations personnel at each site. The labor pool in the area is mainly supplied by the communities of Bakersfield, Wasco, Shafter, Arvin, McFarland, and Taft. In a worst-case scenario, where both South Star I and South Star II are operating and 50% of the operational workforce is nonlocal, an additional 36 persons (including dependents) could move into the area for plant operation (refer to Section 8.8.2.4). As stated earlier, nonlocal personnel would be hired by South Star because there may be a shortage of qualified workers to fill the skilled positions, such as operating the plants. Although the local labor pool contains qualified workers that could fill these higher skilled positions, it is likely that these people are already employed, or would be by the time South Star I or II is operating (Smith, 2001). Therefore, this potential increase would not have an adverse impact on the availability of jobs in the project study area.

Economy. The 11 new long-term jobs created by the project per site will indirectly support about 25 local jobs (see Section 8.8.2.5). The jobs created will not result in the immigration of nonlocal workers into Kern County because the county's unemployment rate tends to be relatively high and salaries associated with indirect jobs and induced jobs do not attract new workers to an area. Once both South Star I and South Star II are operational, the South Star Project will be indirectly supporting approximately 50 indirect jobs in Kern County.

8.8.3.3 Impacts on Population and Housing

The impacts associated with increased temporary employment would not cause a substantial growth in population or disrupt the existing population because the vast majority of employees would already be living in the project study area. The potential increase of 30 nonlocal construction workers and up to 60 of their dependents would not have an adverse impact on the population. As stated above, it is unlikely that the temporary nonlocal construction workers would relocate with their families because of the short-duration of the proposed construction schedule. Although the temporary increase in population in the area could have an impact on the demand for services, lodging, and infrastructure, this demand is

not considered significant because the increase would be temporary. The potential 36 nonlocal permanent employees and their family members would not have an adverse effect on population in the project study area.

Kern County has sufficient temporary housing for the nonlocal construction workforce and their dependents, as discussed in Section 8.8.2.8 above. The nearby communities of Taft, Taft Heights, Ford City, and Maricopa have adequate rental housing , with rental vacancy rates of 11.9%, 8.5%, 9.7%, and 8.5%, respectively (see Table 8.8-12). Those potential personnel who are relocating to the project study area more permanently (i.e. for the operation of the plants) would also find adequate housing available in these same nearby communities. The owner vacancy rates in Taft, Taft Heights, Ford City, and Maricopa are 3.5%, 4.7%, 3.4%, and 4.4%, respectively.

8.8.3.4 Impacts on Fiscal Resources

South Star is expected to have a positive impact on fiscal resources in the region. The South Star Project will bring both sales tax and property tax revenues to the county. The first-year property taxes for each South Star site are expected to be between \$1.05 million and \$1.15 million, which is 1% of the total project cost per site. Kern County will use this money to benefit local infrastructure and services, such as schools, government, and social programs. The local sales tax generated from construction equipment and supplies for both sites will be between \$300,000 and \$450,000 (see Table 8.8-11).

The payrolls from the construction workers and the operating personnel per site are conservatively estimated at approximately \$56.7 to \$64.3 million and \$550,00 per year, respectively. Assuming that they spend about 39% of their payroll on taxable goods, the construction workforce will generate \$1.5 to \$1.8 million in sales tax in the short-term. Using the same assumptions, the estimated sales tax generated from the operational workforce will be \$15,000 per year, benefiting the local communities over the long-term.

8.8.3.5 Impacts on Public Services

The operation of the South Star Project will not cause significant demands on public services or facilities. In the unlikely event that a fire were to occur at either South Star

I or II facilities, the fire station in Fellows would be the first to respond to the scene as well as the Taft and McKittrick stations. All stations respond 24 hours a day. The Taft Sheriff's Office would respond to any crime-related emergency. South Star will not have significant impacts on local emergency services.

The impact of the South Star Project on the hospitals and ambulances in the area would not be significant. Ambulance service estimated response time is eight to ten minutes to each South Star Project site.

8.8.3.6 Impacts on Utilities

The construction and operation of the South Star Project will not induce an adverse burden on electricity and gas, sewer, water, or telephone service in the area.

8.8.3.7 Impacts on Education

There is a potential for up to 9 school-aged children to relocate to the project study area during construction of both sites, and as many as 6 that would relocate more permanently (see Section 8.8.2.3). This would not have significant adverse impact on education because all the school districts in the study area are below capacity and would be able to enroll an additional amount of students (see Section 8.8.2.12). Also, most of the schools are aware of the increasing number of students each year in their district because of the overall growth in Kern County. Each school district is prepared to handle more students each year. Kern County is estimating to have an additional 3,707 students by 2001 – 2002 school year. The schools that show steady increasing enrollment are in Bakersfield, Shafter, McFarland, and Wasco, whereas school districts much closer to the project site, such as Taft and Fellows, are well under enrollment capacity.

Both school districts in Taft have been declining in enrollment each year. The elementary school district is capable of supporting at least 200 more students and the high school district is capable of handling over 400 more students. The school districts in Buttonwillow and Maricopa are experiencing steady enrollment figures from year to year and are capable of handling more students before reaching their capacity. The school district in Fellows is capable of handling at least another 150 students. Overall, construction and

operation of South Star will not have an impact on education in the area because the number of students will not increase significantly, and the school impact fees and property tax revenues will support education improvements.

Kern County's school impact fee is \$0.33 per square foot for commercial or industrial development. However, this school impact fee does not apply to the school districts that could be affected by the South Star Project. In addition, the first year property taxes for the two South Star facilities will generate between \$2.1 to \$2.3 million for education.

8.8.3.8 Cumulative Impacts

Cumulative adverse socioeconomic impacts may potentially result from a project if the construction or operational demands, when combined with similar demands from one or more projects in the region exceed available resources. When considered along with other power plant projects approved or pending that are also located in western Kern County, the construction of the South Star Project has the potential to cause adverse socioeconomic impacts on the study area. Once the South Star and other power generation facilities in the area have been completed, there would be a net benefit to the socioeconomic environment due to increases in local employment opportunities and increases in the tax base. The following analysis, therefore, relates to potential construction phase impacts due to construction timeline overlaps with other power generation facility projects in western Kern County.

To determine the potential for cumulative socioeconomic impacts during construction, similar projects in the area were assessed and their relative impacts were combined with the South Star Project. The cumulative project demands for construction were then compared to the available resources and conditions in the local and regional vicinity.

There are a total of five potential power generation facility projects that may be under construction during the proposed 15-month period for the construction of each South Star facility. Based on a Final Staff Assessment for the Western Midway-Sunset Power Project CEC, 1999), the CEC was expected to have reviewed and authorized AFCs for the three projects by early 2001; Western Midway-Sunset Power Project (Midway-Sunset Project), the Pastoria Energy Facility (Pastoria Project), and the Antelope Power Project

(Antelope Project). As of June 2001, the CEC was reviewing an amendment to the AFC for the Sunrise Project, which would effectively extend the construction of Sunrise another 19 months. A fifth project is proposed in Rosedale, a western suburb of the City of Bakersfield. This AFC has not yet been submitted to the CEC, however it is a fast track project that proposes to refurbish an existing facility by the end of 2001, in which case it would overlap with the South Star Project. Table 8.8-14 shows the estimated number of construction workers by month for the construction schedules of the identified power projects.

The South Star Project construction is scheduled to commence November 2001, lasting 15 months, which would overlap almost entirely with the four projects mentioned above. There is a 14-month overlap period from November 2001 to December 2002, where between 552 and 1,883 workers may be needed for construction. The 14-month overlap has an average of 1,381 workers per month for five projects. During the month of May 2002, as many as 1,883 construction workers are estimated to be working on five power projects in the region.

It is anticipated that the South Star Project as well as the other identified projects would draw primarily on the local labor force. With the addition of each identified power project to the construction schedule between April 2001 and June 2003, less workers (both skilled and unskilled) will be available to meet the needs of a project. It is expected that local labor force will not be able to meet the cumulative needs of all five projects (see Section 8.8.2.3). The Sunrise Project estimated that 86 percent of construction workers would be local, with 14 percent nonlocal, which is about average for the three other identified projects. The Midway-Sunset Project estimates 73 percent local, 27 percent nonlocal, whereas the Pastoria and Antelope Projects estimate 92 percent local, 8 percent nonlocal (CEC, 2000). The South Star Project estimated approximately 90% local and 10 percent nonlocal due to the fact that each facility does not demand large construction workforces relative to other power facility projects. However, because of the proposed timeline, the peak months of construction for South Star I and II coincide with the greatest demand for construction workers out of the power generation facility projects listed in Table 8.8-14. Depending on the availability of workers and the types of skills needed, this coincidence may result in an increase in the numbers of nonlocal workers necessary to complete both South Star projects. This potential

influx of temporary workers would not result in an adverse cumulative impact because the work would be temporary. As stated in Section 8.8.3.2, although this temporary increase in population in the area could have an impact on the demand for services, lodging, and infrastructure, this demand is not considered significant because it is temporary.

The percentage of nonlocal workers estimated for each South Star Project would have a less-than-significant impact on socioeconomics in the region. Although there is a potential for local shortages in specific skilled trades, the regional labor pool of the Metropolitan Bakersfield area and other parts of Kern County combined with the estimated percentage of nonlocal workers would support the local work force without adverse socioeconomic impacts. The Final Staff Assessment for the Midway-Sunset Project concluded that these estimates for local versus nonlocal workers are consistent with the availability of general construction laborers and skilled trades in Kern County (CEC, 2000). Furthermore, the staff found that there is sufficient housing available in Bakersfield and other communities closer to the project sites to meet all nonlocal worker needs (page 296, CEC, 2000).

Using the IMPLAN construction employment multiplier of 3.23, during the 14-month overlap period in construction, it is estimated that between 1,231 and 4,199 indirect jobs would be created by the projects. Based on the overlap average of 1,412 workers, an estimated average of 3,149 indirect jobs would be created during those 14 months. As discussed above for the South Star Project, these jobs would be filled by the local work force. The jobs created will not result in the immigration of nonlocal workers into Kern County because the county's unemployment rate tends to be relatively high and salaries associated with indirect jobs and induced jobs do not attract new workers to an area. In May 2001, there were 27,300 unemployed workers out of a total civilian workforce of 286,500 in Kern County, or 9.5 percent unemployment for the Kern County work force (see Table 8.8-6).

Currently, the public services in the area have adequate existing and future capacities to support the construction and operation of both South Star Projects. Although together the five identified projects will induce an increase in the potential need for public service needs during the 14-month overlap of construction timelines, this increase will be

temporary. Operation needs for public services would create an incremental increase in service needs for the area that is planned for by public services. It is expected that cumulative short term and long term impacts on existing utilities, fire protection, law enforcement, health services, education, and housing will not likely exceed the available resources in the area. The annual property tax revenues generated by these four facilities is expected to provide additional public resources and potential improvements that will adequately outweigh any short term impacts on public services. Overall, no significant cumulative socioeconomic impacts are expected to occur from the South Star Project when considered in conjunction with the power facility projects in the area.

8.8.3.9 Mitigation Measures

Because there are no significant or adverse impacts identified, no mitigation is required.

8.8.4 Agency Contacts

Agency contacts regarding socioeconomics of the South Star Project are as follows:

Agency	Contact	Telephone
California Department of Education	Deborah Camillo, Research Analyst	(916) 327-0208
Employment Development Department	Karen Hardy, Sub-County Analyst	(916) 262-2340
Fellows Fire Department	Captain Wycoff	(661) 765-2155
Kern County Superintendent of Schools	Jesus Garcia, Research Coordinator	(661) 636-4648
Kern County Administration Office	Jordan Kaufman	(661) 868-3198
Kern County Assessor's Office	Jim Fitch, Representative	(661) 868-3315
Kern County Economic Development Corporation	Lynn Brown, Representative	(661) 862-5150
Kern Council of Governments	Peter Smith, Demographics	(661) 861-2191
Kern County Sheriff's Department	Taft Sub-Station	(661) 861- 3110
Hall Ambulance Paramedic	Louis Cox, Operations Manager	(661) 327-4111
Taft Fire Department	Captain Guy Finocchiaro	(661) 765-2155

8.8.5 Compliance with Laws, Ordinances, Regulations, and Standards

All applicable LORS are summarized in Table 8.8.15 along with the administering agency. This section describes how the South Star Project will comply with all applicable LORS pertaining to socioeconomic impacts.

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Table 8.8-1. Historical and Projected Population Growth of the South Star Project Study Area

Area	April-1980^a	April-1990^a	April-2000^b	Jul-2010^c	Jul-2020^c
Arvin	6,863	9,286	12,956	15,252	19,332
Bakersfield	105,611	174,820	247,057	301,500	366,100
Buttonwillow	N/A	1301 ^d	1,266	N/A	N/A
Fellows/Derby Acres	N/A	521 ^d	153	N/A	N/A
Ford City	N/A	3,781 ^d	3,512	N/A	N/A
Maricopa	946	1,193	1,111	1,648	2,089
McFarland	5,151	7,005	9,618	12,355	15,660
McKittrick	N/A	616 ^d	160	N/A	N/A
Shafter	7,010	8,409	12,736	15,568	19,732
Taft	5,316	5,902	6,400	11,976	15,179
Wasco	9,613	12,412	21,263	27,173	34,441
Greater Taft-Maricopa Region	N/A	18,248 ^d	20,331	22,096	24,016
Unincorporated	223,290	262,602	273,822 ^c	362,724	459,740
Kern County	403,089	544,981	661,645	859,818	1,073,748
California	23,667,902	29,758,213	33,871,648	40,262,400 ^e	45,821,900 ^e

NOTE: Sum may not equal totals due to rounding

a = From the California Department of Finance. http://www.dof.ca.gov/html/Demograp/Hist_e-4.xls

b = U.S. Department of Census, 2000 Census Data

c = Smith, 2001. Kern Council of Governments (Kern COG). Based on estimates from the California Department of Finance.

d = Ball, 1998. Based on 1990 Census Data.

e = From the California Department of Finance. <http://www.dof.ca.gov/HTML/DEMOGRAP/P1.doc>

Table 8.8-2. Population Growth Rates in the Project Study Area

Area	Percent 1980-1990	Percent 1990-2000	Percent 2000-2010	Percent 2010-2020
Arvin	26.1	28.3	15.1	21.1
Bakersfield	39.6	29.2	18.1	17.6
Buttonwillow	N/A	-2.8	N/A	N/A
Fellows/Derby Acres	N/A	-240.5	N/A	N/A
Ford City	N/A	-7.7	N/A	N/A
Maricopa	20.7	-7.4	32.6	21.1
McFarland	26.5	27.2	22.2	21.1
McKittrick	N/A	-285.0	N/A	N/A
Shafter	16.6	34.0	18.2	21.1
Taft	9.9	7.8	46.6	21.1
Wasco	22.6	41.6	21.7	21.1
Greater Taft-Maricopa Region	N/A	10.2	8.0	8.0
Unincorporated	15.0	4.1	24.5	21.1
Kern County	26.0	17.6	23.0	19.9
California	20.5	12.1	15.9	12.1

Source: Based on data in Table 8.8-1

Table 8.8-3. Demographic Profiles for Cities Surrounding the South Star Project (with percentages)

County/City	Total Population	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)¹
Arvin	12,956	45.0	1.1	1.5	1.1	0.1	46.5	4.6	87.5
Bakersfield	247,057	61.9	9.2	1.4	4.3	0.1	18.7	4.4	32.5
Buttonwillow	1,266	34.3	3.8	1.7	0.1	0.0	55.1	5.1	68.4
Fellows	153	88.9	0.0	2.0	1.3	0.7	6.5	0.7	14.4
Ford City	3,512	80.5	0.6	1.8	1.3	0.6	11.6	3.5	22.0
Maricopa	1,111	85.9	0.0	2.0	0.5	0.0	8.9	2.8	13.5
McFarland	9,618	28.5	3.2	1.6	0.7	0.1	61.2	4.7	85.7
McKittrick	160	96.9	0.0	0.0	0.0	0.0	0.0	3.1	10.0
Shafter	12,736	44.5	1.6	1.2	0.3	0.1	48.4	3.8	68.1
Taft	6,400	83.2	2.0	0.8	1.3	0.4	10.4	1.9	15.5
Taft Heights	1,865	88.2	0.5	1.4	0.9	1.0	5.6	2.3	13.1
Wasco	21,263	34.6	10.3	1.0	0.7	0.2	50.5	2.8	66.7
Kern County	661,645	61.6	6.0	1.5	3.4	0.1	23.2	4.1	38.4
California	33,871,648	59.5	6.7	1.0	10.9	0.3	16.8	4.7	32.4

Source: 2000 Census Data.

¹ - Hispanic is not race specific

Table 8.8-4. Poverty Levels for Selected Cities in the Study Area

City/Town	Percent	Number of Individuals
Arvin	30	2,816
Bakersfield	15	25,782
Buttonwillow	29	376
Fellows	N/A	N/A
Ford City	14	538
Maricopa	9	106
McFarland	28	1,923
Shafter	22	1,874
Taft	9	499
Wasco	27	3,308
Kern County	16	89,312

N/A = Not Available

Source: 1990 Census Data

Table 8.8-5. Demographic Profile

	% Minority, 1990^a	% Minority by Race only, 2000^b	% Hispanic/ Latino, 2000	% Living Below Poverty Level, 1990
State of California	42.6	40.5	32.4	12.2
Kern County	38.0	38.4	38.4	16.4
Tract 33.03	8.0	12.6	12.0	10.3
Tract 33.04	12.3	27.5	14.7	12.8
Tract 34	13.1	19.3	21.8	14.1
Tract 35	11.3	13.9	14.0	9.0
Tract 36	11.5	15.3	18.4	15.9
San Luis Obispo County	18.4	15.4	16.3	12.1
Tract 127.02	9.3	8.0	10.4	9.1

Notes:

^aIncludes non-white races, and Hispanic whites.

^bDoes not account for Hispanic or Latino ethnicity. Includes persons listed as only one race and Black or African American, American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, or Some other race; and includes persons listed as more than one race. Hispanic/Latino origin-by-race data were not available from the 2000 Census in July 2001.

Source: U.S. Bureau of the Census, 1990; U.S. Bureau of the Census, 2000.

Table 8.8-6. Employment in the Study Area, May 2001

Area	Labor Force	Employment	Unemployment	Percent Unemployment Rate
Arvin	4,940	3,850	1,090	22.10%
Bakersfield	100,770	93,730	7,040	7.00%
Buttonwillow	590	570	20	2.80%
Ford City	1,790	1,660	130	7.40%
McFarland	3,250	2,350	900	27.50%
Maricopa	600	570	30	5.20%
Shafter	4,180	3,640	540	12.80%
Taft	3,330	3,130	200	5.90%
Taft Heights	1,010	940	70	6.90%
Wasco	6,060	4,990	1,070	17.60%
Kern County	286,500	259,200	27,300	9.50%
State Total ^a	17,262,300	16,481,700	780,600	4.5%

Source: From the California State Employment Development Department. Not seasonally adjusted.

<http://www.calmis.cahwnet.gov/file/lfmonth/kernsub.txt>.

a. <http://www.calmis.cahwnet.gov/file/lfhist/97AACOU.TXT>.

Table 8.8-7. Labor Force and Industry Employment for Bakersfield MSA (Kern County)

	May 2000 (in thousands)	May 2001 (in thousands)	May 2001 % of Total	% Change (2000- 2001)
<i>Total Farm</i>	46.8	47.9	19.37	2.40
Farm Production	18.3	17.1	6.91	-6.60
Farm Services	28.5	30.8	12.45	8.10
<i>Total Nonfarm</i>	195.1	199.4	80.63	2.20
Goods Producing	29.4	30.7	12.41	4.40
Mining	9	8.9	3.60	-1.10
Construction	10.7	12	4.85	12.10
Manufacturing	9.7	9.8	3.96	1.00
Service Producing	165.7	168.7	68.22	1.80
Transportation & Public Utilities	11.3	11.4	4.61	0.90
Transportation	8.1	7.9	3.19	-2.50
Communications & Public Utilities	3.2	3.5	1.42	9.40
Trade	44.9	44.9	18.16	0.00
Wholesale Trade	8.7	8.6	3.48	-1.10
Retail Trade	36.2	36.3	14.68	0.30
Finance, Insurance & Real Estate	7.3	7.2	2.91	-1.40
Services	48.9	50	20.22	2.20
Business Services	10.6	11.2	4.53	5.70
Health Services	15	14.9	6.03	-0.70
Engineering & Management	5.6	5.7	2.30	1.80
Other Services	17.7	18.2	7.36	2.80
Government	53.3	55.2	22.32	3.60
Federal Government	10.5	9.6	3.88	-8.60
Department of Defense	6.1	5.9	2.39	-3.30
Other Federal Government	4.4	3.7	1.50	-15.90
State & Local Government	42.8	45.6	18.44	6.50
State Government	6.8	7	2.83	2.90
State Education	1.2	1.3	0.53	8.30
Other State Government	5.6	5.7	2.30	1.80
Local Government	36	38.6	15.61	7.20
Local Education	23.9	25.3	10.23	5.90
County Government	8.2	9.2	3.72	12.20
City Government	2.1	2.1	0.85	0.00
Other Local Government	1.8	2	0.81	11.10
Total All Industries	241.9	247.3	100.00	2.20

Note 1: Labor force data is by place of residence; it includes self-employed individuals, unpaid family workers, household domestic workers, and workers on strike.

Note 2: Industry employment is by place of work; it excludes self-employed individuals, unpaid family workers, household domestic workers, and workers on strike.

Source: Labor Market Information Division of the California State Employment Development Department (EDD).
<http://www.calmis.cahwnet.gov>.

Table 8.8-8. Construction Personnel Requirements by Trade (Per Site)

Craft or Trade	Month of Construction															Total Person-Month	Percent of Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Insulation Workers						8	12	6	4	4	4	8	12	6	4	68	4.8
Boilermakers					8	12	14	14	2	2	8	12	14	14	2	102	7.2
Carpenters	4	8	10	10	10	10	10	10	10	10	8	8	6	4	2	120	8.5
Electricians	2	4	4	6	10	16	18	18	18	14	14	18	18	18	6	184	13.1
Ironworkers		4	8	8	8	12	12	12	8	8	6	6	6	4	2	104	7.4
Laborers	6	10	14	14	18	20	20	20	14	14	20	20	20	10	4	224	15.9
Millwrights					2	4	5	6	1	1	4	5	6	4	1	39	2.8
Operating Engineers	7	5	4	4	6	6	6	6	4	4	4	4	4	4	1	65	4.6
Plasters						4	4	2								10	0.7
Painters							4	4	2	2	4	4	4	2	2	28	2.0
Pipefitters	2	4	8	6	12	16	16	16	8	8	16	16	16	12	6	162	11.5
Sheetmetal Workers						4	6	6	4	2	2	4	6	6	2	42	3.0
Sprinklerfitters							2	4	4							10	0.7
Surveyors	2	2	1	1	2	2	2	2	2	2	2	2	2	2		24	1.7
Teamsters	11	2	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.1
Manual Staff Subtotals	34	39	50	50	77	115	132	127	82	72	93	108	115	87	33	1197	85.0
Contractor Staff	3	5	5	10	14	18	18	18	14	14	18	18	18	12	10	195	13.8
Total Site Staff	37	44	55	60	91	133	150	145	96	86	111	126	133	99	43	1409	100.0

Table 8.8-9. Construction Personnel Cost by Craft (Per Site)

Craft	Cost (\$1,000)
Insulation Workers	509
Boilermakers	917
Carpenters	853
Electricians/Lineman	1,519
Ironworkers	793
Laborers	1,444
Millwrights	262
Operating Engineers	497
Plasters/Cement Masons	85
Painters	158
Pipefitters	1,093
Sheetmetal Workers	305
Sprinklerfitters	68
Surveyors	174
Teamsters	177
Total	8,854

Note: The construction contractors supervision staff and the owners construction management staff will cost approximately \$2.2MM. The balance of the construction labor costs consist of contractor profit, field offices, consumables for staff, safety activities, etc.

Table 8.8-10. Project Plant Operating Labor Requirements (Per Site)

Position	Quantity
Plant Manager	1
Operators	6
Engineers	1
Clerical	1
Technicians	1
Contractors	1
Total Labor Force	11

Table 8.8-11. Distribution of Sales Tax During South Star Project Construction

Sales Tax Rate Distribution (%)	South Star I Distribution (Dollars)	South Star II Distribution (Dollars)
State (6)	120,000 to 180,000	120,000 to 180,000
County (1)	20,000 to 30,000	20,000 to 30,000
Public Safety (0.25)	5,000 to 7,500	5,000 to 7,500
County Wide (7.25)	150,000 to 225,000	150,000 to 225,000

Table 8.8-12. Housing Estimates in the Project Study Area (as of April 2000)

Community	Housing Units	Occupied	Vacant Units	Homeowner vacancy rate	Rental vacancy rate
Arvin	3,145	3,010	135	1.7	4.4
Bakersfield	88,262	83,441	4,821	2.0	6.2
Buttonwillow	364	328	36	1.7	5.4
Fellows/Derby Acres	58	56	2	0.0	0.0
Ford City	1,444	1,241	203	3.4	9.7
Maricopa	460	404	56	4.4	8.5
McFarland	2,031	1,990	41	0.3	1.4
McKittrick	61	54	7	0.0	25.0
Shafter	3,624	3,293	331	2.5	9.9
Taft	2,478	2,233	245	3.5	11.9
Wasco	4,256	3,971	285	2.5	5.8
Kern County ¹	231,564	208,652	22,912	2.6	8.2

2000 Census Data. www.census.gov/prod/cen2000/dp1/

Table 8.8-13. Schools in the Vicinity of the South Star Project

Community	School District	School	1997-98 Enrollment	Enrollment Capacity	Over Capacity	Projection by 2001 – 2002
Bakersfield	Bakersfield City School District	32 Elementary	20,408	N/A	N/A	
		9 Jr. High	6,531	N/A	N/A	
		TOTAL	26,939	N/A	N/A	27,753
	Kern High School District	Bakersfield	2,560	2,700	No	
		Centennial	2,348	2,160	Yes	
		East Bakersfield	1,795	1,948	No	
		Foothill	1,992	1,877	Yes	
		Highland	1,981	1,912	Yes	
		North	1,956	2,054	No	
		Ridgeview	2,113	2,190	No	
		South	2,177	1,961	Yes	
		Stockdale	2,070	2,175	No	
		West	2,225	2,257	No	
		Kern Valley	642	601	Yes	
		Shafter	1,282	1,350	No	
		Arvin	2,136	2,103	Yes	
		TOTAL	25,277	25,288	No	27,109
Taft	Taft City School District	Conley	283	300	No	
		Elementary				
		Jefferson	197	200	No	
		Elementary				
		Lincoln Jr. High	652	750	No	
		Parkview	311	340	No	
		Elementary				
		Roosevelt	443	495	No	
		Elementary				
		Taft Primary	228	240	No	
		School				
		TOTAL	2,114	2,325	No	N/A
	Taft Union High School District	Buena Vista	52	N/A		
		High School				
		Taft High School	879	N/A		
		TOTAL	931	1,350	No	1,000
Shafter	Maple School District	Maple	254	230	Yes	
		Elementary				
		TOTAL	254	230	Yes	N/A

Table 8.8-13. (Continued)

Community	School District	School	1997-98 Enrollment	Enrollment Capacity	Over Capacity	Projection by 2001 - 2002
Shafter (continued)	Richland-Lerdo Union School District	Richland Intermediate	898	N/A	N/A	
		Richland Primary	1,050	N/A	N/A	
		Richland Senior Elementary	490	N/A	N/A	
		TOTAL	2,438	2,500	No	2700
Wasco	Wasco Elementary Union School District	4 Elementary	2,030	N/A	N/A	
		1 Jr. High	533	N/A	N/A	
		TOTAL	2,563	2,600	No	
	Wasco High School District	Wasco High	1,342	1,250	Yes	
		Independence High	122	260	No	
		TOTAL	1,464	1,510	No	1,584
Buttonwillow	Buttonwillow Union School District	Buttonwillow School	419	420	No	
		TOTAL	419	420	No	440
Maricopa	Maricopa Unified School District	Maricopa Elementary	275	275	No	
		Maricopa High School	100	100	No	
		TOTAL	375	375	No	460
McKittrick	McKittrick School District	McKittrick School	59	60	No	
		TOTAL	59	60	No	60
Fellows	Midway School District				No	
		Midway Elementary	137	300	No	
		TOTAL	137	300	No	140
McFarland	McFarland Unified School District	2 Elementary	1,452	1,544	No	
		McFarland Middle School	401	513	No	
		High Schools	746	500	Yes	
		Other	N/A	402	N/A	
		TOTAL	2,599	2,959	No	2,713

Table 8.8-14. Cumulative Construction Personnel Months by Month (Estimated)

Years	South Star I	South Star II	Sunrise Projects ¹	Pastoria ²	Western Midway-Sunset ²	Antelope ²	Totals
Year 2000							
Aug			64				64
Sep			75				75
Oct			96				96
Nov			142				142
Dec			157				157
Year 2001							
Jan			197				197
Feb			233				233
Mar			241				241
Apr			255	25			280
May			237	25	24		286
Jun			213	55	45		313
Jul			193	80	73		346
Aug			124	120	101		565
Sep			104	180	148		432
Oct			78	275	196		549
Nov	37	37	46	280	250	48	698
Dec	44	44	112		307	45	552
Year 2002							
Jan	55	55	201	270	359	146	1086
Feb	60	60	295	275	386	202	1278
Mar	91	91	336	325	400	296	1539
Apr	133	133	338	330	400	392	1726
May	150	150	341	365	377	500	1883
Jun	145	145	336	340	251	614	1831
Jul	96	96	316	295	134	718	1655
Aug	86	86	286	295	90	772	1615
Sep	111	111	240	280	78	800	1620
Oct	126	126	185	240	58	800	1535
Nov	133	133	125	175	52	754	1372
Dec	99	99	88	130	22	502	940
Year 2003							
Jan	43	43	76	60		268	490
Feb			58	40		180	278
Mar			43	35		156	234
Apr			27	50		116	193
May			22			104	126
Jun						44	44

1 – Sunrise began August 2000 and is estimated to finish construction by the end of October 2001. South Star is scheduled to begin November 2001 with construction completed by the end of May 2003

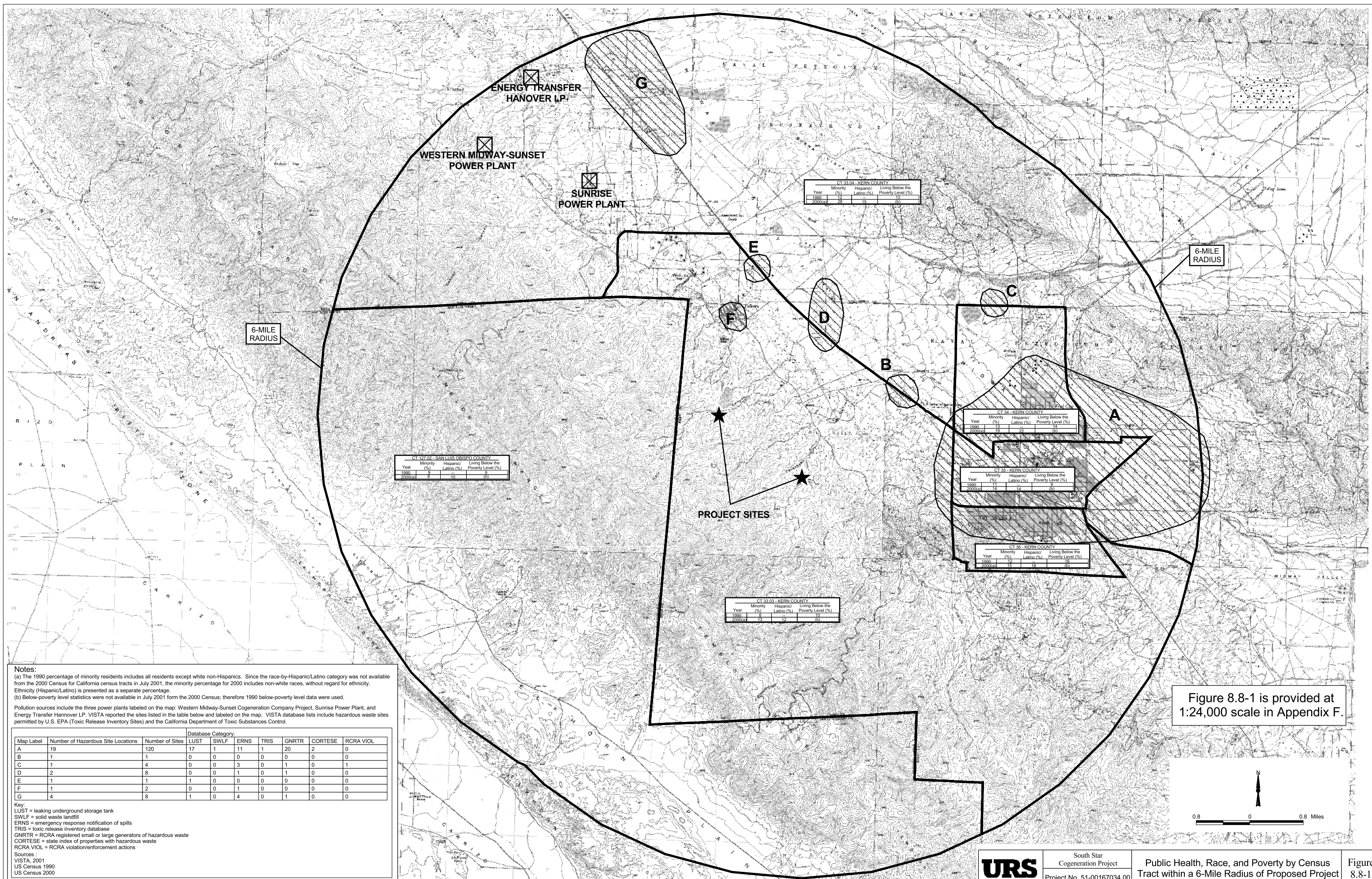
2 – Adapted from: Final Staff Report on the Application For Certification for the Western Midway-Sunset Power Project, CEC, 2000. Socioeconomics Chapter by Joseph Diamond and Dale Edwards

3 – Bold type numbers represent peak months of construction.

Table 8.8-15. South Star Project Summary of Compliance with Socioeconomic LORS

Authority	Administering Agency	Requirements	AFC Compliance Section
Executive Order 12898 Environmental Justice	EPA	Agencies must develop strategies to focus on environmental conditions and human health in minority communities and low income population.	Section 8.8.2.1 — Population. Project will not impact any low income or minority communities.
CEQA	CEC	Analysis of potential environmental impacts through AFC.	Section 8.8.3 — Environmental Consequences. Environmental impacts (economic and/or social effects) are analyzed in the AFC.
California Government Code, Section 53080, 65955 – 65997	Kern County	Provisions for school impact fees for development projects near school districts are included.	Section 8.8.3.5 — Impacts on Education. School development fees will be levied against the project.

Figure 8.8-1. Environmental Justice 6-mile Radius Map



Notes:

(a) The 1990 percentage of minority residents includes all residents except white non-Hispanics. Since the race-by-Hispanic/Latino category was not available from the 2000 Census for California census tracts in July 2001, the minority percentage for 2000 includes non-white races, without regard for ethnicity. Ethnicity (Hispanic/Latino) is presented as a separate percentage.

(b) Below-poverty level statistics were not available in July 2001 from the 2000 Census; therefore 1990 below-poverty level data were used.

Pollution sources include the three power plants labeled on the map: Western Midway-Sunset Cogeneration Company Project, Sunrise Power Plant, and Energy Transfer Hannover LP. VISTA reported the sites listed in the table below and labeled on the map. VISTA database lists include hazardous waste sites permitted by U.S. EPA (Toxic Release Inventory Sites) and the California Department of Toxic Substances Control.

Map Label	Number of Hazardous Site Locations	Number of Sites	Database Category:							
			LUST	SWLF	ERNS	TRIS	GNRTR	CORTESE	RCRA VIOL	
A	19	120	17	1	11	1	20	2	0	
B	1	1	0	0	0	0	0	0	0	
C	1	4	0	0	3	0	1	0	1	
D	2	8	0	0	1	0	1	0	0	
E	1	1	1	0	0	0	0	0	0	
F	1	2	0	0	1	0	0	0	0	
G	4	8	1	0	4	0	1	0	0	

Key:
LUST = leaking underground storage tank
SWLF = solid waste landfill
ERNS = emergency response notification of spills
TRIS = toxic release inventory database
GNRTR = RCRA registered small or large generators of hazardous waste
CORTESE = state index of properties with hazardous waste
RCRA VIOL = RCRA violation/enforcement actions

Sources:
VISTA, 2001
US Census 1990
US Census 2000

Figure 8.8-1 is provided at 1:24,000 scale in Appendix F.